

## EFFICIENT FILE SYSTEM DATA JOURNALING

### ABSTRACT OF THE DISCLOSURE

5           A method for data journaling includes writing data into at least one block in a journal storage area, and marking each written block as dirty. If the number of blocks in the journal storage area marked as dirty is greater than the number of blocks in a corresponding data storage area that have been used and whose corresponding blocks in the journal storage area are not marked as dirty, then those used blocks are copied to the  
10           corresponding blocks in the journal storage area, and a message is transmitted instructing a meta-data server to swap the data storage area and the journal storage area. If this condition is not so, the blocks in the journal storage area marked as dirty are copied to corresponding blocks in the data storage area, and a message is transmitted instructing the  
15           meta-data server to commit the data stored in the journal storage area.